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MAHAN IN THE 21ST CENTURY
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Are the many principles and theories that Alfred Thayer Mahan contributed to naval thought still relevant when considered against the technological changes that have occurred since World War II? The predominant changes involve nuclear weapons, nuclear energy, missile technology, and space. His theories, written in the late 19th century, were used by several nations, including France, Italy, Russia, and Japan, to expand and build their navies. Mahan's approach to his principles was through a historical aspect. He based much of what he theorized on world naval warfare history.

Mahan's prescription for the future navies was based on concentration of sea power, capital ships being used in decisive battles, and sea power having a dominate influence on history. How these principles will fare in the nuclear age--the high-technology world of today-- will be the focus of this discussion.

Mahan's principles were intended to transcend all technological changes. This meant that the principles were to apply despite the changes that might occur in such areas as naval propulsion, aircraft, explosives, missile technology, and space technology.

It has been argued by those who have studied modern naval warfare that Mahan's principles are not valid because the modern fleets rarely engage each other in a surface

action. In fact, today's major surface combatants are primarily concerned with power projection ashore and keeping the sea lanes open, while their biggest threats are submarines, aircraft, missiles, and detection/tracking from space. The emphasis of power projection ashore is a shift in mission from the day that Mahan wrote his theories about sea power, making his theories at least questionable.

I will discuss some of his primary principles and apply them to the "violent peace" and high-technology world of today.

CONCENTRATION

Mahan wrote that a nation should concentrate naval forces into large, formidable fleets of ships and apply them at a decisive time and place. He wrote, "Never attempt to straddle, to do two things at the same time, unless your force is evidently so supreme that you have clearly more than enough for each." In applying this theory, however, he employed situations that involved purely tactical surface ships maneuvering against other such forces. The mission of today's surface navy is not to attack and destroy other fleets but to project power ashore, as I have already stated.

Mahan could not have imagined the sheer power of today's nuclear weapons or that satellites in space would be used to help target surface fleets. Obviously, in today's surface navy warfare, there are many cross-regime (air to sea, sub-sea to sea, land to sea, and space to sea) applications of technology that have the direct effect of negating the theory that naval power should be concentrated. The counter argument would be to spread naval power into effective elements that can be maneuvered to complement the power and position of each other, but to keep them far enough apart so that they are not targeted together. If the opposition were able to target them together and use nuclear weapons or to mass other such destructive weapons on them, then the fleet could be effectively eliminated.

The modern fleet now has many advantages and protections that nuclear power and missile technology has given it in defense of the cross-regime threat. Nuclear propulsion has given speed to the major combatants. The missile technologies work in both ways, negating a portion of the air threat. Perhaps the biggest threat to a concentrated fleet would be aircraft and submarines. Today's fleet would be able to counter this threat with aircraft of its own in order to not allow opposition forces close enough to the fleet to pose a threat with nuclear weapons or missiles.

CAPITAL SHIPS

Another of Mahan's principles was that the navy should concentrate its resources on large ships or ships that have a particularly lethal and devastating weapon systems. In Mahan's day this may have meant a large ship whose purpose was to attack other ships. Today's capital ships have changed in many ways due to technology.

Let's define the capital ship. It is a large ship with many capabilities around which a concentration of fleet support ships will cluster. This ship will have multiple purposes which could be power projection ashore as well as keeping the sea lanes open to commercial and military shipping.

Obviously the aircraft carrier with its task force is a capital ship that can act in all dimensions of sea power. Its capabilities have been demonstrated to us many times over in recent history. Few surface combatants offer it a challenge and its ability to influence in Third World situations is impressive.

Targeting a carrier task force using nuclear weapons with the help of satellites is a cause for concern. Even the use of the latest anti-ship missile technology against our

capital ships is cause for debate about whether we should invest so much capability and resources in a single asset. Again, technology works both ways as there are technologies to reasonably protect our fleet.

Further, the United States has managed to build the world's most powerful naval fleet. Our fleet has many capital ships that have many divergent technologies (aircraft carriers, submarines, and significant surface ships armed with the latest missile and electronic technologies). This variety and size is hard to attack even with the latest technology. So, Mahan may have been exactly correct with his capital ship theory in its broadest sense, despite the technology changes of the 20th century.

SEA POWER INFLUENCE

Mahan's principle that sea power will influence history is again based on the naval history that he studied and wrote about. His study of the rise and fall of the British Navy exemplified this principle. Though he may have missed in some of his analysis of why Britain's Navy fell from supremacy, his point was that if a country is dependent on the sea for commerce it should secure the means to ensure that sea lanes are open and its ports are not blockaded.

Further, a strong navy can offensively blockade and disrupt another country's commerce.

In recent history, an increasing number of nations, to include the United States, are dependent on the sea lanes for commerce and supplies of raw materials for industry. This makes them dependent on the sea lanes and their maritime strength for their economic well being. The connection between commerce and a strong navy becomes vital to a nation.

As has been stated before, there is an argument that sea power is vulnerable to high technology weapons. The consequence of this is that the nation's vital interest and economic posture can be directly affected if its maritime potency is negated. This is why the United States has maintained a strong and powerful navy for most of this century.

A country may need to project its power abroad in a limited or escalating situation. In order to keep its force logistically supported, the navy would have to keep the lines of communication open to the contested area. Again, despite possible confrontation with high technology weapons, it will take a strong, fast, large navy to carry forth the nation's interest and insure that the nation's will is carried out.

Even though we may have to view Mahan's principles in the broadest context, these principles still can be applied in this age of nuclear weapons, nuclear energy, missile technology, and space. These technological changes have been countered with like or otherwise technologies.

These technologies have yielded larger war heads, faster ships, instantaneous intelligence, and missiles capable of finite accuracy from long distances. These advantages are being used to benefit the fleet and the nation they support. In many cases, just the presence of the modern fleet off a controversial country's coast is enough of a deterrent to cause matters to be settled. This, of course, gives the modern fleet great value when it is in its power projection/influence mode.

Mahan gave us the stimulus for thought and debate on the virtues of a large navy with capital ships that could influence history. His principles have been discussed for almost a century. The fact that they are still being discussed and taught is indicative that they still have merit. We can look at our own navy, our position in the world today (indeed the Persian Gulf Crisis), and be grateful for the navy that Mahan influenced. His principles have served us well!